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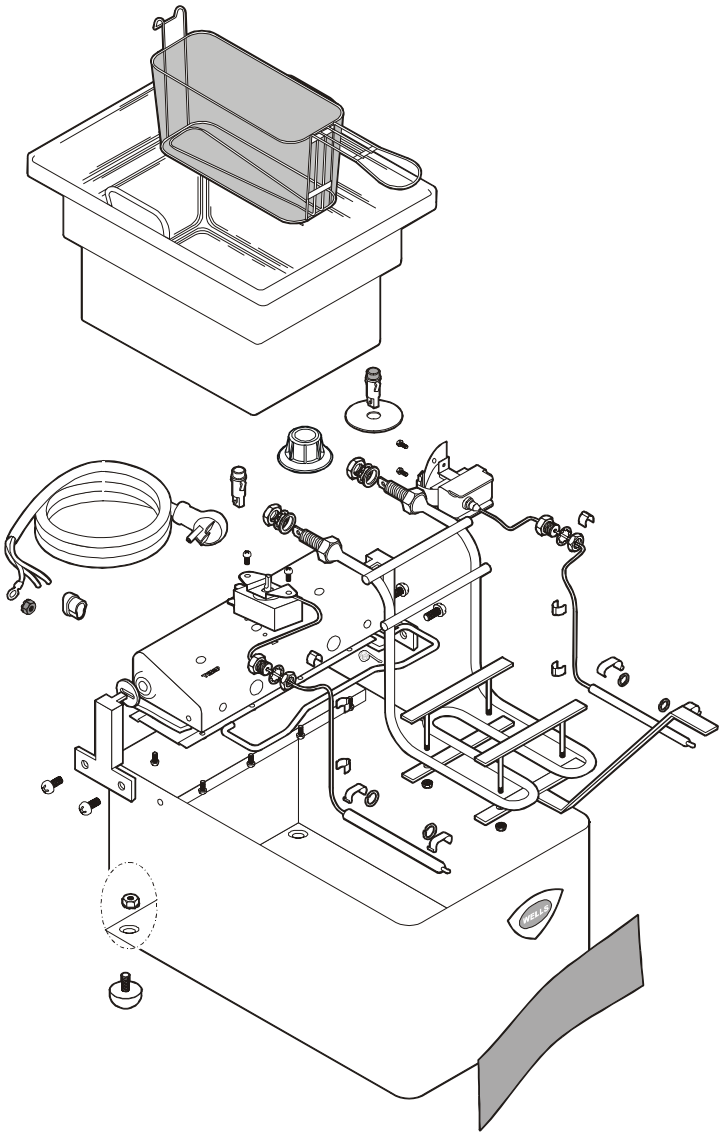


SERVICE MANUAL

MODEL LLF-14 COUNTERTOP FRYER

Includes:

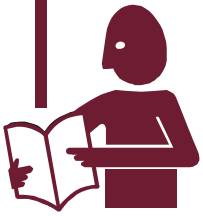
TROUBLESHOOTING SUGGESTIONS

SERVICING INSTRUCTIONS

EXPLODED VIEW

PARTS LIST

WIRING DIAGRAM



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WARNING: Risk of personal injury

Installation procedures must be performed by a qualified technician with full knowledge of all applicable electrical and plumbing codes. Failure can result in personal injury and property damage.

WARNING: Electric Shock hazard

All servicing requiring access to non-insulated electrical components must be performed by a qualified technician. DO NOT open any access panel which requires the use of tools. Failure to follow this warning can result in severe electrical shock.

CAUTION: Risk of Damage

DO NOT connect or energize this appliance until all installation instructions are read and followed. Damage to the appliance will result if these instructions are not followed.

This appliance is intended for use in commercial establishments only.

This appliance is intended to prepare food for human consumption. No other use is recommended or authorized by the manufacturer or its agents.

Operators of this appliance must be familiar with the appliance use, limitations and associated restrictions. Operating instructions must be read and understood by all persons using or installing this appliance.

Cleanliness of this appliance is essential to good sanitation. Read and follow all included cleaning instructions and schedules to ensure the safety of the food product.

Disconnect this appliance from electrical power before performing any maintenance or servicing.

DO NOT submerge this appliance in water. Do not splash or pour water on, in or over any controls, control panel or wiring.

The technical content of this manual, including any wiring diagrams, schematics, parts breakdown illustrations and/or adjustment procedures, is intended for use by qualified technical personnel.

Any procedure which requires the use of tools must be performed by a qualified technician.

This manual is considered to be a permanent part of the appliance. This manual and all supplied instructions, diagrams, schematics, parts breakdown illustrations, notices and labels must remain with the appliance if it is sold or moved to another location.

This appliance is made in the USA. Unless otherwise noted, this appliance has American sizes on all hardware.

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INTRODUCTION

This manual contains the information needed to properly service and repair this equipment.

SPECIFICATIONS

MODEL	VOLTS	AMPS	WATTS	POWER CORD
LLF-14	120 VAC 1ø	15 A	1,800 W	NEMA 5-15P
	208 VAC 1ø 240 VAC 1ø	16.2A 18.8A	3,400W 4,500W	NEMA 6-30P

FEATURES & OPERATING CONTROLS

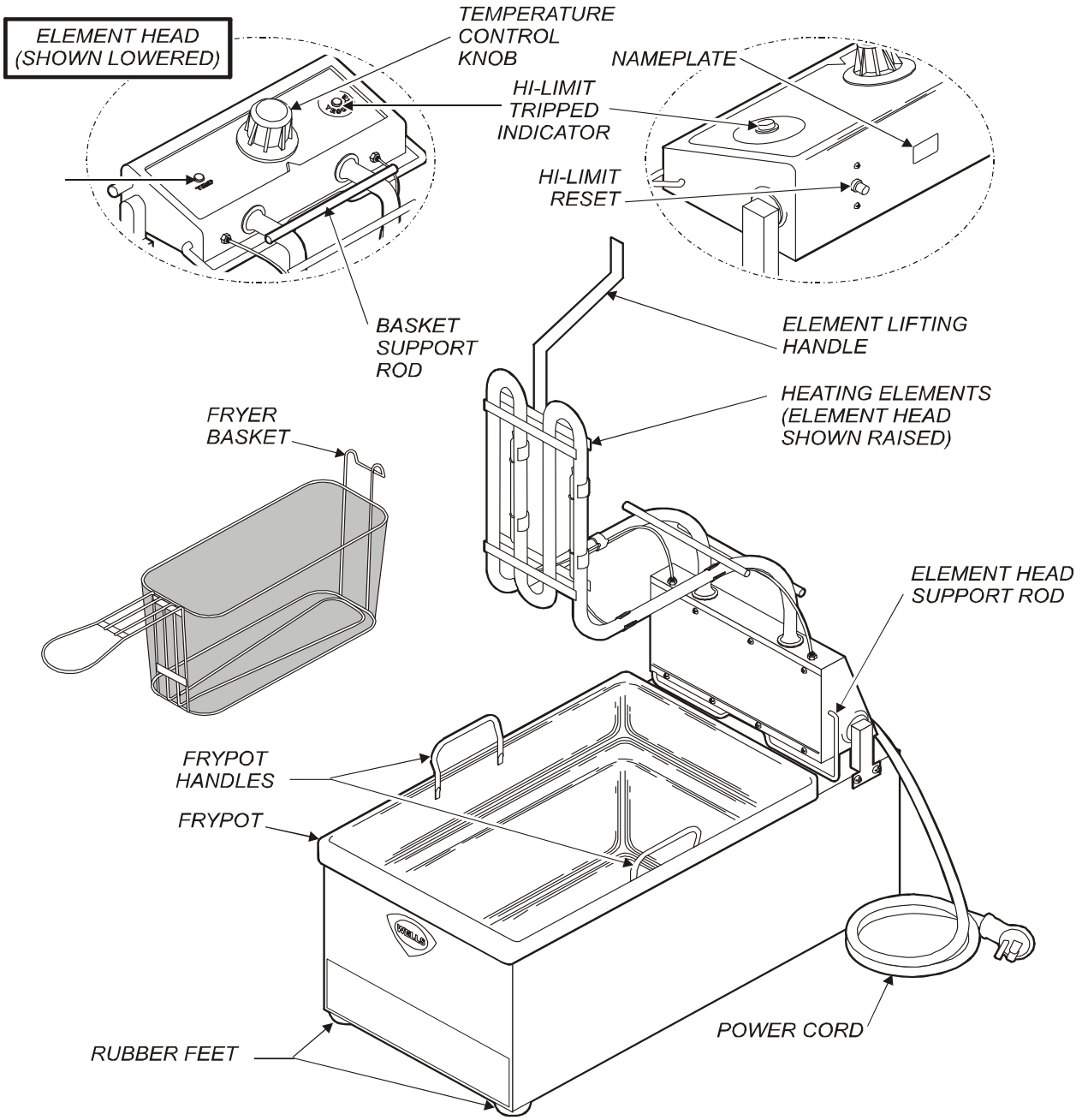


Fig. 1 LLF-14 Features & Operating Controls

DANGER: BURN HAZARD

Contact with hot oil will cause severe burns.
Always wear protective clothing and heat resistant gloves when operating the fryer.

NORMAL OPERATION

1. a. Be sure the TEMPERATURE CONTROL KNOB is turned to *OFF.*
   b. Lower the ELEMENT HEAD into the frypot by pushing back on the ELEMENT LIFTING HANDLE, raising the SUPPORT ROD, then carefully lowering the elements.
2. Fill the FRYPOT with commercial-grade liquid shortening to the MIN OIL line. Capacity: 14 pounds.
   IMPORTANT: DO NOT overfill the frypot. Cold oil will expand as it heats. Adding too much oil will allow the frypot to overflow during operation.
   For best results, always use top grade commercial shortening made specially for frying. Maintain proper oil level in frypot during operation.
3. Turn the TEMPERATURE CONTROL KNOB to the desired temperature. The HEAT INDICATOR light will glow. When the oil reaches the desired temperature, the heat indicator will go out. The heat indicator will go off and on during operation as the thermostat cycles to maintain temperature.
   For best results: DO NOT set temperature control to a temperature setting higher than is required for the food product.
4. Load baskets no more than 1/2 full with food product.
   a. DO NOT overload fry baskets. For best results, load baskets uniformly to half full.
   b. Using the basket handle, lower the baskets into the hot oil.
   c. When food is cooked, lift the basket out of the oil by the handle. Hang the baskets on the BASKET SUPPORT ROD to drain.
5. When the heat indicator light cycles off, the fryer is ready to cook the next load.
6. Reduce temperature control to 225ºF during idle periods to save power and extend the life of the oil. The fryer will return to operating temperature in just a few minutes when needed.
7. Keep the fryer clean at all times. Rinse baskets frequently, and dry thoroughly, in order to prevent oil contamination.
8. Drain the frypot completely after use. Filter the oil daily, or more often during heavy use.

CAUTION:
Hot Surface

Exposed surfaces can be hot to the touch and may cause burns.

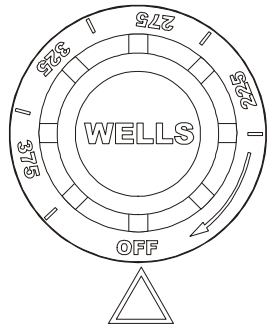


Fig. 2 Temperature Control Knob

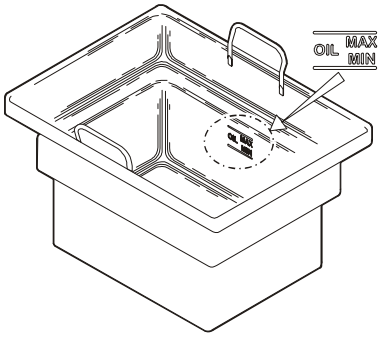


Fig. 3 Oil Level Marking

NOTE: If the oil temperature exceeds 440ºF, the hi-limit safety will shut down the unit, and light the red T*ROUBLE* light. To reset:
Allow the oil to cool, then press the red button on the back of the element head until it “clicks” and stays in.
If tripping persists, see Troubleshooting Suggestions, page 4.

TROUBLESHOOTING SUGGESTIONS

DESCRIPTION	POSSIBLE PROBLEM	SUGGESTED REMEDY
Fryer will not heat	Not plugged in or circuit breaker tripped	Plug into proper receptacle Reset circuit breaker
	Temperature control knob not set to desired temperature	Set to desired temperature
	Hi-limit safety tripped	Clean element[1], reset hi-limit
	Damaged hi-limit safety thermostat or temperature control thermostat	Replace defective thermostat
	Damaged wiring or loose connection	Replace damaged wiring Tighten connections
Fryer will not maintain temperature	Temperature control thermostat thermobulb contaminated with cooking debris	Clean element[2]
	Damaged temperature control thermostat	Replace defective thermostat
Fryer leaks oil	Damaged frypot	Replace frypot
Element head will not raise, will not stay in the up position, or will not lower	Frypot out of position, or has excess cooking debris in bottom	Check frypot for position Clean frypot
	Damaged hinge bracket or support rod	Replace damaged bracket, support rod and/or support rod spring
Element head will not stay in raised position	Damaged support rod	Replace damaged support rod and/or support rod spring
Heat indicator does not light (operation OK)	Defective indicator light	Replace indicator
	Loose or defective wiring	Repair wiring, tighten connectors

[1] The hi-limit safety is designed to shut down the fryer is the oil temperature exceeds 440ºF. A build-up of cooking debris between the heating element and the thermobulb of the hi-limit safety will cause the hi-limit to trip prematurely. Clean the element so that oil may circulate freely between the element and the thermobulb. Reset the safety by pressing the red button on the back of the element head.

[2] A build-up of cooking debris between the heating element and the thermobulb temperature control thermostat will cause inconsistent temperatures. Clean the element so that oil may circulate freely between the element and the thermobulb.

COOKING SUGGESTIONS

Keep the fryer baskets, heating element and frypot clean.

Maintaining the quality of the fryer oil is important for the optimum quality of the food product. Start the day with fresh or freshly-filtered commercial-quality shortening or cooking oil. Filter the oil frequently and replace the oil if it darkens significantly or develops objectionable odors.

Cook at the recommended temperature. Too high a temperature will shorten the life of the cooking oil.

REPLACE ELEMENT

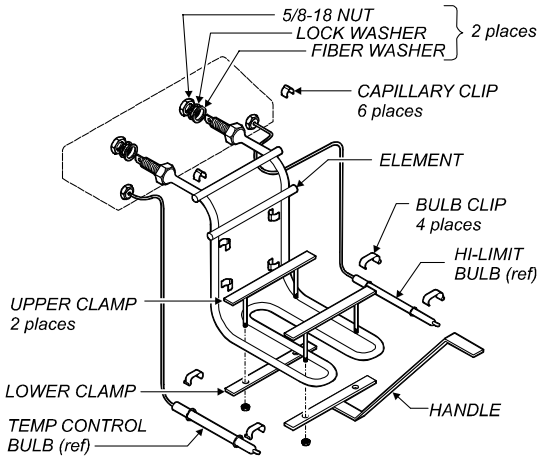


Fig. 4
Element Assembly

Unplug fryer and allow to cool before servicing.

A. REMOVE ELEMENT HEAD FROM FRYER
1. Remove two screws holding either element head pivot. Remove pivot.
2. Lift element head assembly from fryer.
3. Remove bottom cover from control box.

B. DISCONNECT ELEMENT
1. Remove the handle and clamps from the element.
2. Disconnect the wiring from the element terminals.
3. Note position of each thermobulb and the routing of the capillary tubes. Remove bulbs from element by removing two bulb clips and three capillary clips from each bulb.
4. Undo both holding nuts from terminal end of the element.
5. Withdraw the element from the control box.

C. INSTALL NEW ELEMENT
1. Wipe area around element openings in control box to remove any grease or other cooking debris.
2. Slide one fiber washer over each end of the new element.
3. Insert element into the control box. Slide a lock washer over each element , then thread on the holding nuts. Make sure the element is square with the control box. Tighten holding nuts.
4. Reconnect wiring to the element terminals.
5. Reinstall the thermobulbs. Be sure the wire ring is intact and in place at each end of the thermobulb. Snap a bulb clip over the element and over each end of bulb to secure the bulb to the element. The wire rings must be between the bulb clips. Carefully route the capillary tube and secure with three capillary clips. Repeat for both bulbs.
6. Reinstall handle and clamps.

D. REINSTALL ELEMENT HEAD ON FRYER
1. Be sure the pivot washer is in place on the pivot brackets. While holding the support rod in the forward position, slide the element head assembly onto the pivot. Reinstall the pivot removed In step A.

Test fryer for proper operation and return to service.

CAUTION: Burn Hazard

Allow fryer to cool before performing this service.

CAUTION: Electric Shock Hazard

Unplug fryer from electric power before servicing.

IMPORTANT:
DO NOT damage the capillary tubes. If the tubes are pinched or kinked, they are not repairable.

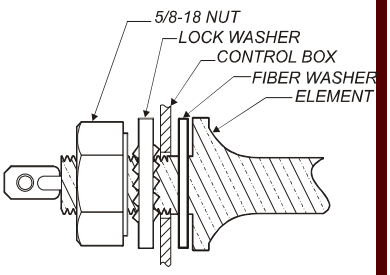


Fig. 5 Element Attachment

IMPORTANT:
Be sure wire rings are in place on thermobulbs. Rings must be positioned between the bulb clips. Failure to properly position the rings will result in the immediate failure of the thermostat due to thermobulb damage.

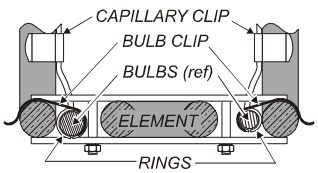


Fig. 6 Cross-Section View of Elements

CAUTION: Burn Hazard

Allow fryer to cool before performing this service.

CAUTION: Electric Shock Hazard

Unplug fryer from electric power before servicing.

IMPORTANT:
DO NOT damage the capillary tubes. If the tubes are pinched or kinked, they are not repairable.

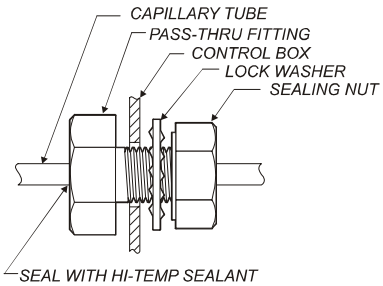


Fig. 8 Capillary Tube Pass-Thru Fitting

IMPORTANT:
Be sure wire rings are in place on thermobulbs. Rings must be positioned between the bulb clips. Failure to properly position the rings will result in the immediate failure of the thermostat due to thermobulb damage.

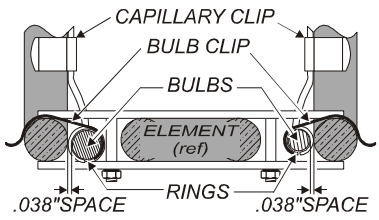


Fig. 9 Thermobulb Installation

REPLACE TEMPERATURE CONTROL THERMOSTAT OR HI-LIMIT SAFETY THERMOSTAT

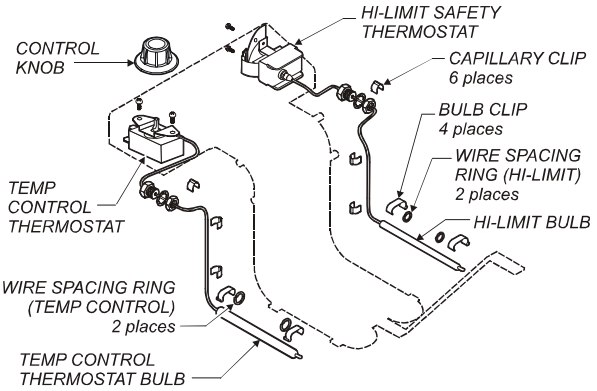


Fig. 7 Thermostat Installation

Unplug fryer and allow to cool before servicing.

A. REMOVE ELEMENT HEAD FROM FRYER
1. Remove two screws holding either element head pivot. Remove pivot.
2. Lift element head assembly from fryer.
3. Remove bottom cover from control box.

B. DISCONNECT THERMOSTAT
1. Remove the control knob if replacing the temperature control thermostat.
2. Remove the two screws holding the thermostat to the control box.
3. Note the position of the wiring. Disconnect the wiring from the thermostat terminals.
4. Note position of the thermobulb and the routing of the capillary tube. Remove the bulb from the element by removing two bulb clips and three capillary clips.
5. Undo the pass-thru fitting and withdraw the thermostat from the control box.

C. INSTALL NEW THERMOSTAT
1. Wipe area around pass-thru openings in control box to remove any grease or other cooking debris.
2. Undo nut and lock washer from pass-thru fitting of the new element. Insert the bulb from the inside of the control box.
3. Reconnect wiring to the thermostat terminals. Connect wiring then attach the thermostat to the control box
4. Reinstall the thermobulbs. Be sure the wire spacing rings are intact and in place at each end of the thermobulb. Snap a bulb clip over the element and over each end of bulb to secure the bulb to the element. The wire spacing rings must be between the bulb clips. Carefully route the capillary tube and secure with three capillary clips.
5. Carefully route capillary tube away from electrical terminals inside of the control box. Tighten the pass-thru fitting then seal the inside of the pass-thru fitting with hi-temp sealant.

D. REINSTALL ELEMENT HEAD ON FRYER (see page 5)

Test fryer for proper operation and return to service.

REPLACE SUPPORT ROD SPRING

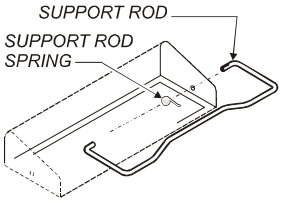


Fig. 10
Support Rod
Spring Installation

CAUTION: Burn Hazard

Allow fryer to cool before performing this service.

CAUTION: Electric Shock Hazard

Unplug fryer from electric power before servicing.

Unplug fryer and allow to cool before servicing.

A. REMOVE ELEMENT HEAD FROM FRYER
   1. Remove two screws holding either element head pivot. Remove pivot.
   2. Lift element head assembly from fryer.
   3. Remove bottom cover from control box.

B. REMOVE BROKEN SPRING
   1. Using a flat blade screwdriver or other suitable tool, pry the split end of the support rod to open the slot.
   2. Remove and discard the broken spring parts.

C. INSTALL NEW SPRING
   1. Position the support rod toward the back (power cord) side of the control box, then slide the new spring over the split end of the support rod.
      Note orientation: Long leg of spring at the top and pointing toward the front; short leg of spring in the slot.
   2. Using pliers, squeeze the split end of the support rod to capture the spring.
   3. Tension the spring by swinging the long leg clockwise, and allowing it to rest against the lip of the control box.

D. REINSTALL ELEMENT HEAD ON FRYER (see page 5)

Test fryer for proper operation and return to service.

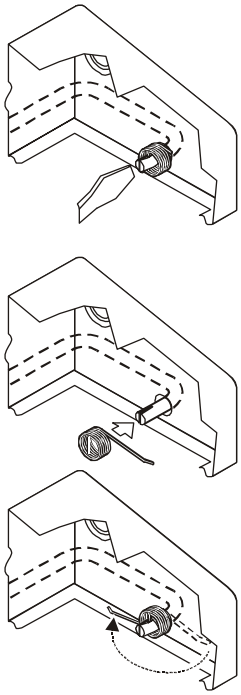


Fig. 11 Installation Sequence

EXPLODED VIEW

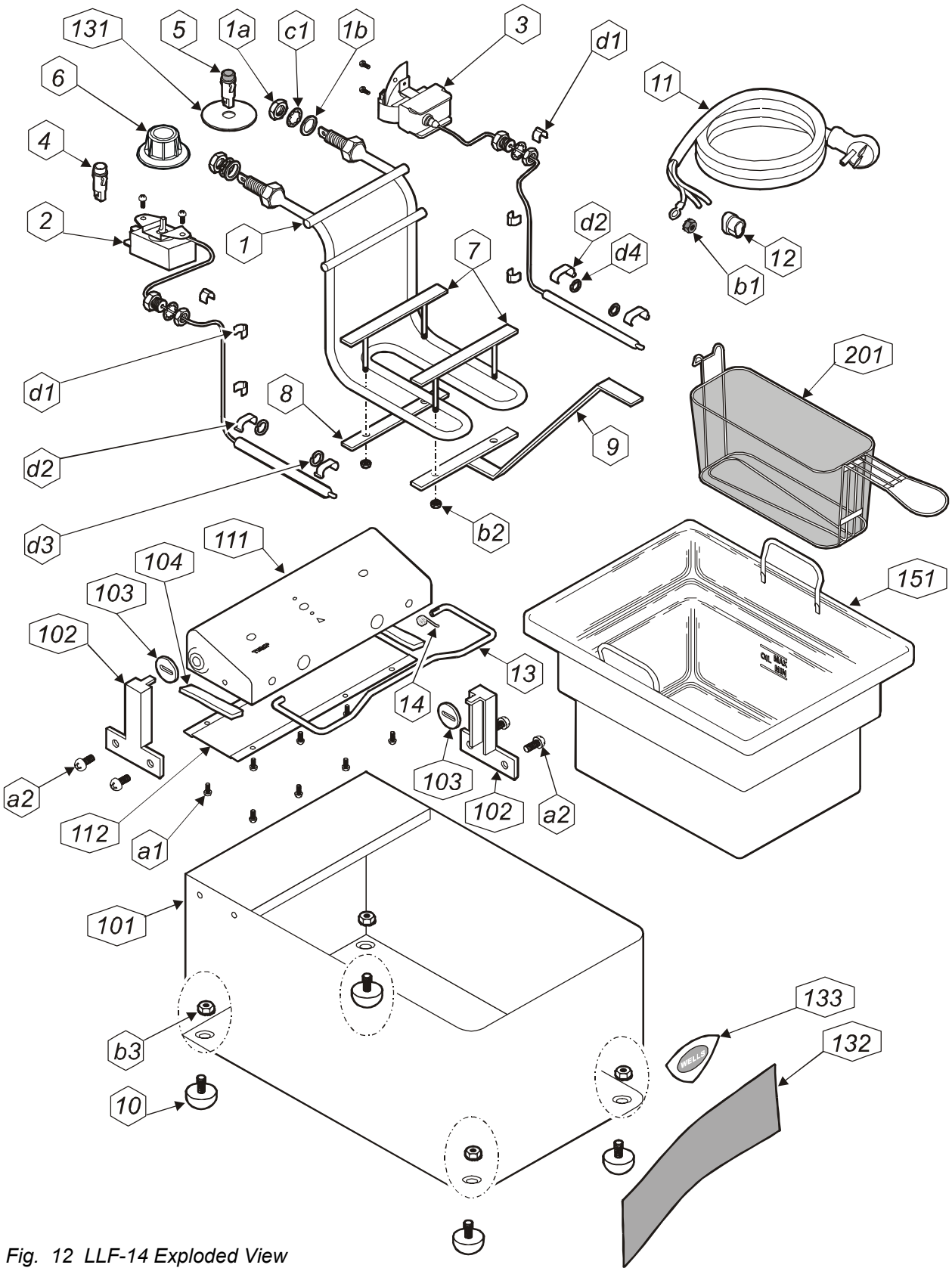


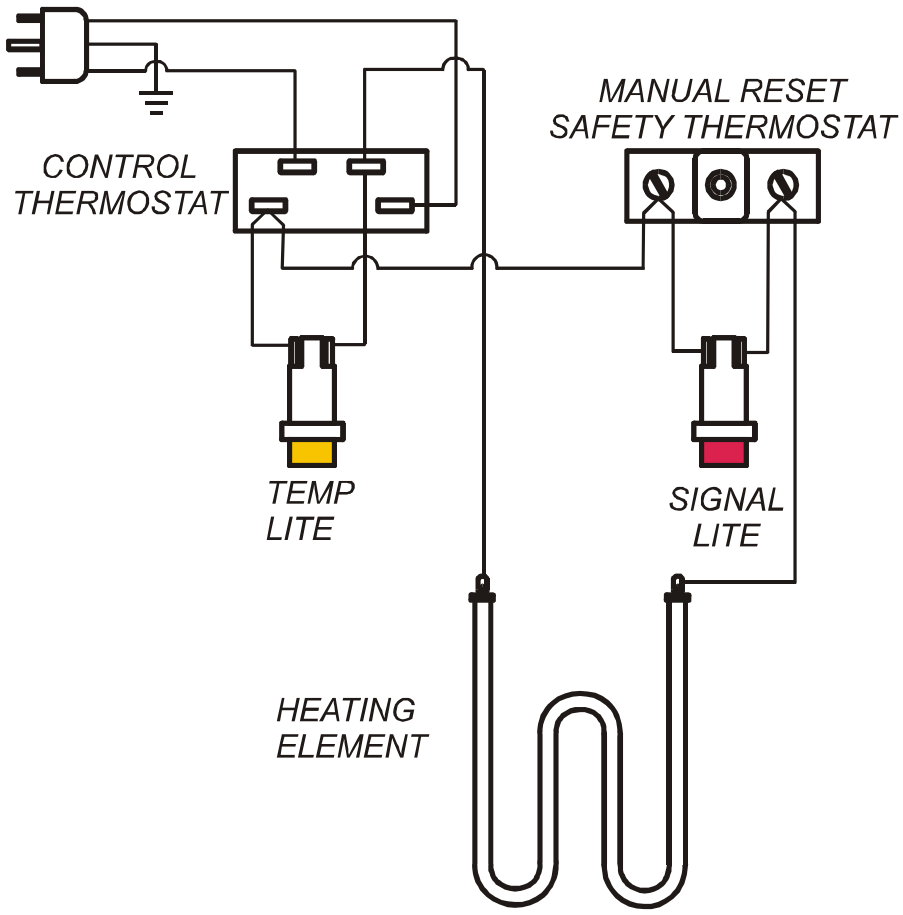
Fig. 12 LLF-14 Exploded View

PARTS LIST

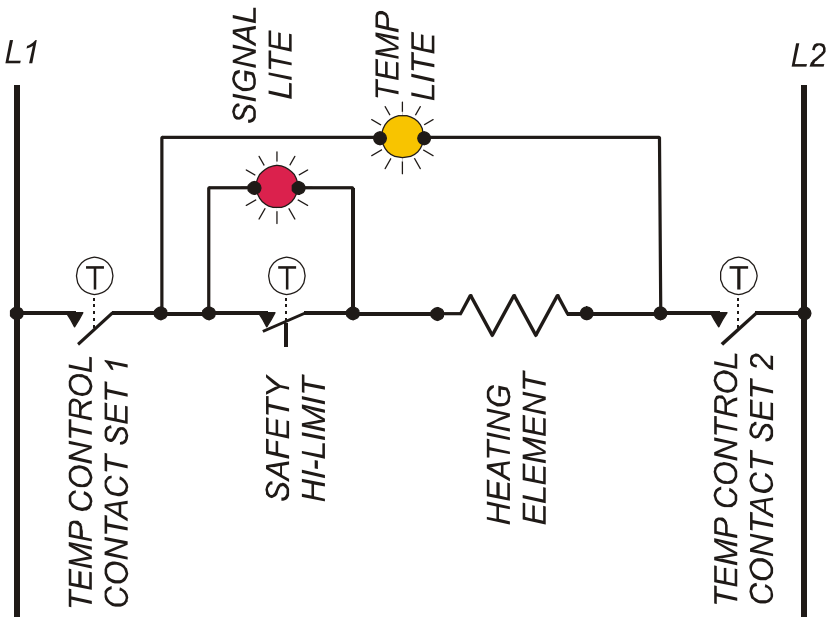
ITEM	P/N.	DESCRIPTION	QTY
1	65725	ELEMENT, 120V, 1800W	1
	65729	ELEMENT, 240V, 4500W	
1a		NUT, 5/5-18 (part of element)	2
1b		WASHER, FIBER (part of element)	2
2	50133	THERMO, TEMP CTRL	1
3	58656	THERMO, SAF MAN RESET	1
4	50516	INDICATOR, AMBER 240V	1
5	51157	INDICATOR, RED 240V	1
6	54066	KNOB, TEMP CONTROL	1
7	see kit	CLAMP, UPPER	2
8	“”	CLAMP, LOWER	1
9	“”	HANDLE ASSEMBLY	1
10	65728	RUBBER FOOT	4
11	65061	CORDSET, 120V 5-15P	1
	20141	CORDSET, 240V 6-30P	
12	65788	STRAIN RELIEF, 120V	1
	50789	STRAIN RELIEF, 240V	
13	52427	SUPPORT ROD, SHORT	1
14	52428	SPRING, SUPPORT ROD	1
101	65765	SHELL ASSEMBLY	1
102	65767	BRACKET, PIVOT	2
103	53436	WASHER, SLOTTED PIVOT	2
104	55747	GASKET, FRYER HEAD (pk 12)	2
111	65774	CONTROL BOX	1
112	55028	COVER, CONTROL BOX	1
131		LABEL, HI-LIMIT RESET	1
132		LABEL, FACEPLATE	1
133		LOGO, WELLS DOMED	1
151	20169	FRYPOT	1
201	21506	FRY BASKET, HALF-SIZE	2

ITEM	P/N.	DESCRIPTION	QTY
a1	55566	SCREW, TRS SS 6x1/4 (pk 100)	8
a2	53890	SCREW, 12-24x3/4 (pk 10)	4
b1	55736	NUT, 8-32 KEP GREEN (pk 10)	1
b2	18-302	NUT, 8-32 SS KEP	4
b3	50153	NUT, 8-32 KEP (pk 100)	4
c1		WASHER, LOCK 5/8ID INT SEMS	2
d1	58667	CLIP, CAPILLARY	6
d2	65777	CLIP, BULB	4
d3	50792	RING, WIRE THERMO BULB	2
d4	55637	RING, WIRE SAFETY THERMO	2
	65781	HEAD ASSEMBLY, COMPLETE 120V	
	65783	HEAD ASSEMBLY, COMPLETE 240V	
7,8,9	65783	KIT, HANDLE AND FRONT CLAMP	
	65784	KIT, REAR CLAMP	

WIRING DIAGRAM



LLF-14 FRYER WIRING DIAGRAM, 120V and 240V



LLF-14 FRYER SCHEMATIC, 120V and 240V

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